Headquarters U.S. Air Force

Integrity - Service - Excellence

M&S Conference
Return on Investment &
EA-LVCE Breakout Session
17 August 2011

Presenter: Dr. Edward Degnan
AFAMS

Agenda
ROI & EA-LVCE - Breakout Session

Time	Topic
0800 - 0815	**Welcome / Opening Remarks / Introductions** • Overview and Desired Outcomes of the Session
0815 - 0900	**Update on USAF Foundations** • LVC-IA Five Year Plan / Priorities List • EA-LVCE ICD (Initial Capability Document)
0900 - 1000	**ICD to Materiel Development Decision to Analysis of Alternatives** • Pre MDD • AoA Study Plan • Roadmap and Data Collection • Open Discussion
1000 - 1015	**Break**
1015 - 1115	**Return on Investment** • Approach and Metrics for ROI • Open Discussion
1115 - 1130	**Wrap Up / Review Way Ahead & Action Items**

Conference ROE's
ROI & EA-LVCE - Breakout Session

Promote an open and creative atmosphere and ensure mutual respect is given to each attendee and their ideas in-line with conference's theme

- **Stay within the solution space**
  - **Focus on cross-cutting issues & avoid singular organizational issues**
  - **Only issues which a probable solution can be developed will be addressed**

- **Collaborate fairly and openly**
  - **Be transparent as possible – non-attributable**
  - **Open discussion, brainstorming, etc. is encouraged**
  - **Everyone has the right to speak and actively be listened to**
  - **Consensus by simple majority agreement**

- **Facilitator has the final word to keep breakout sessions effective and focused**

Problem Statement
ROI & EA-LVCE - Breakout Session

The warfighter does not have an Enterprise Architecture for LVC systems which provides persistence and interoperability across multiple LVC environments to operate seamlessly at varying security levels and multiple representations to meet operational requirements.

Desired Outcomes

- ***Develop understanding of the AoA process***
- ***Develop understanding Cost Assessment and Program Evaluation (CAPE) guidance***
- ***Communicate the methodology required for identifying alternative approaches within the AoA***
- ***Communicate the roles of the working groups during the EA-LVCE AoA***
- ***Identify potential members for working groups in the EA-LVCE AoA***
- ***Develop operator-focused definition of ROI and what will be needed to track and support ROI through Measures of Effectiveness (MoEs)***
- ***Develop initial Operator-focused MOEs for persistence, interoperability, and integration of an EA-LVCE for training events/exercises***

Precepts
ROI & EA-LVCE - Breakout Session

Fundamental Precept #1: Do No Harm

USAF should NOT discontinue any of the existing simulation architectures.

Fundamental Precept #2: Interoperability is NOT Free

USAF must make the necessary investments - It is not reasonable to expect that LVC interoperability goals can be met with little or no investment.

Fundamental Precept #3: It Starts with Small, Immediate Steps

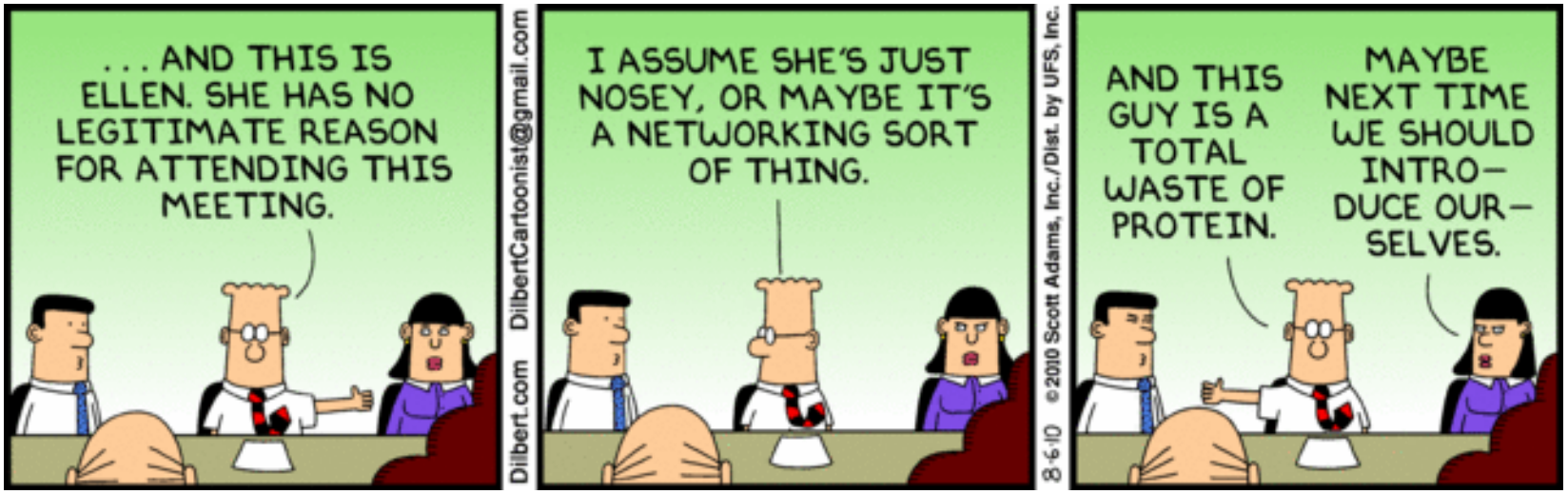
USAF should take immediate action to improve interoperability among existing simulation architectures.

Fundamental Precept #4: Provide Oversight

- ***AFAMS provides the USAF oversight of LVC-IA resources and activities across developer & user organizations.***

- ***The result of the CBA, ICD and AoA will determine if there is need for a program of record which might result in a Program Office.***

Name, Organization & Current Position



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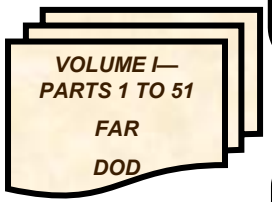
USAF M&S Foundations

Five Year Plan
5 Focus Areas

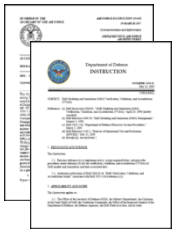
Technical

Funding



Non Technical

Metrics

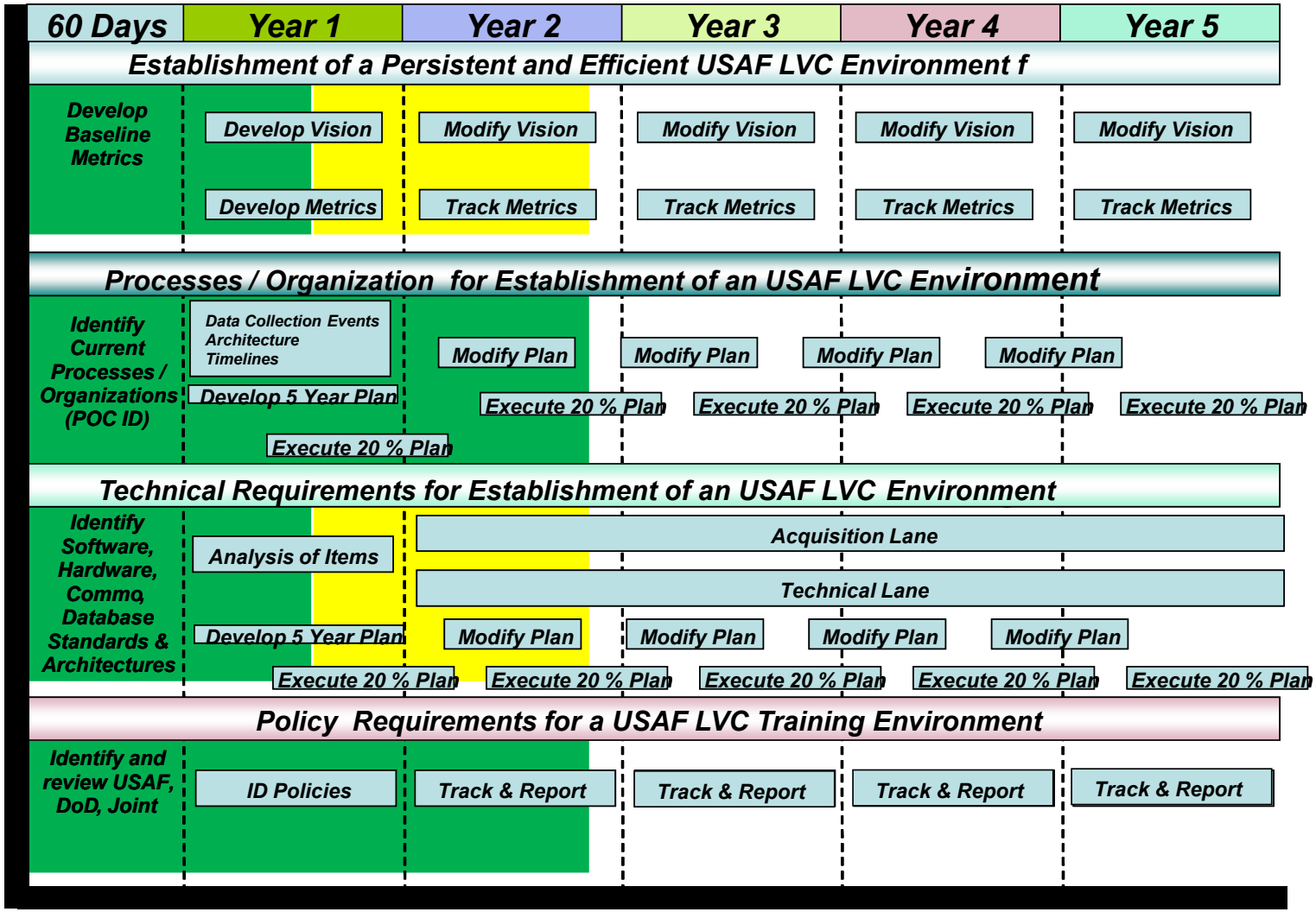


Policy

GOALS	OBJECTIVES		
Improve Warfighter Readiness	▪ Workforce Management ▪ Policy Alignment	▪ MLS/CDS ▪ Data Exchange ▪ Networks	▪ Requirements Process
Re-use Efficient Architecture	▪ DoDAF ▪ Standards ▪ CSE	▪ Data Exchange ▪ MLS/CDS ▪ Hardware	▪ Software ▪ Networks
Reduce/Avoid Duplication of Effort	▪ Knowledge Management ▪ Hardware ▪ Software	▪ Networks ▪ Tech Obsolescence ▪ MLS/CDS ▪ Standards	▪ CSE
Responsive to Evolving Command Requirements	▪ Corporate LVC Structure ▪ MLS/CDS	▪ Requirements Process ▪ Acquisition Process	▪ LVC Acquisition Program
Maintain/Increase Innovation	▪ MLS/CDS ▪ Hardware ▪ Software	▪ Networks ▪ Tech Obsolescence ▪ Data Exchange	▪ CSE
Optimize Resources	▪ C&A ▪ MLS/CDS ▪ Standards	▪ POM / Budget Process ▪ Hardware	▪ Event Integration Planning ▪ Software
Monitor Program Success Through Metrics	▪ All		

LVC-IA ENVIRONMENT

USAF M&S Foundations
Current Status



USAF M&S Foundations
2011 Issues Prioritization

Technical Issues

1. *Availability of Blue Authoritative Data Sources (ADS)*
2. *Standard/consistent M&S representation spanning the entire life cycle of the systems*
3. *Incompatibility of disparate and outdated databases, standards, and analysis tools*
4. *Availability of Red ADS*
5. *Develop distributed network infrastructure for analysis/wargaming*

Non-Technical Issues

1. *Develop clear AF/DOD IA Certification and Accreditation (C&A) requirements and processes*
2. *More effective system model and data repositories*
3. *Documentation of M&S systems*
4. *Technical and non-technical training, education, and awareness of USAF M&S*
5. *Visibility of live test data to improve fidelity of M&S*

Policy Issues

1. *Consistent, enduring LVC M&S direction and vision for the USAF (not just a single focus)*
2. *Cross Domain Solution policies to keep pace with IA technologies*
3. *Policy enforcement / processes to ensure model availability and access*
4. *Policy for tasking to provide description of system capabilities at for MLS & for future years*
5. *Integrated VV&A policies with developers/supplier of LVC products*

5a. *Policies regarding DIACAP accreditation*

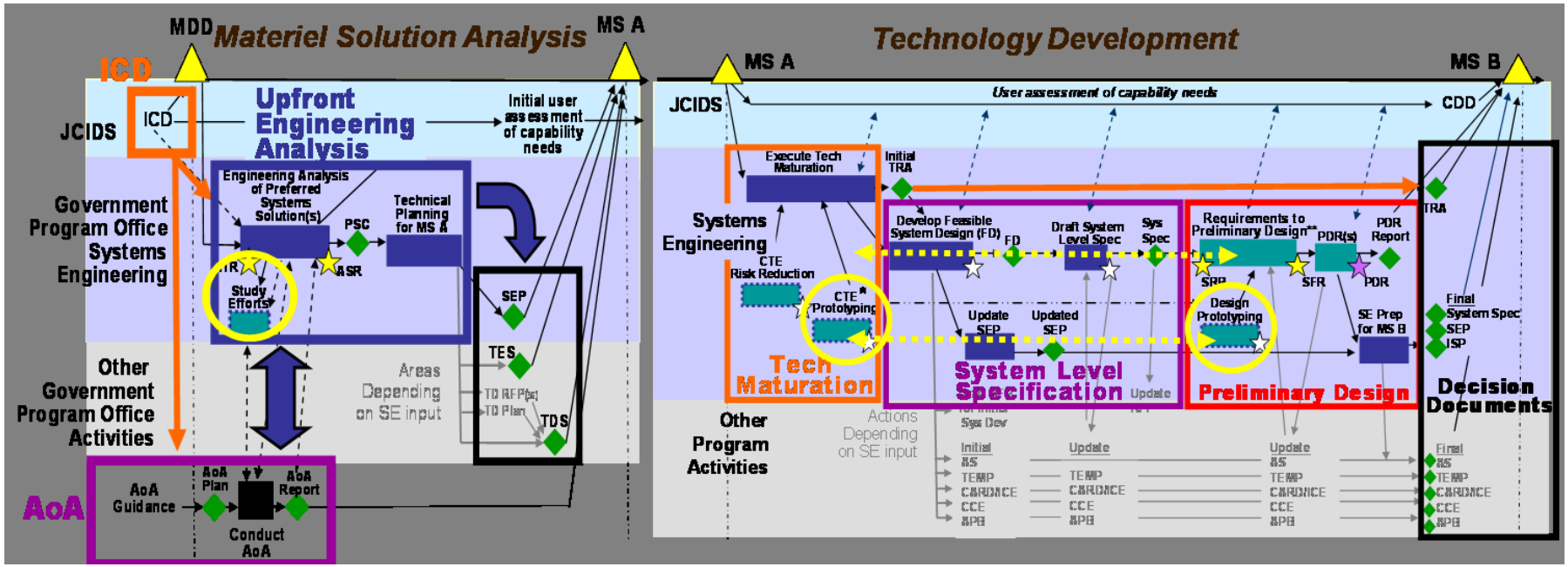
EA-LVCE ICD Update
JCIDS 101

- **Step One – Conduct a Capabilities-Based Assessment *(Completed)***
  - **Preference is to *avoid excessive rigor and time-consuming detail***
  - **Concentrate on whether to recommend action**
  - **Focused on recapitalization / replacement actions take no more than 90 days**
  - **Complex CBAs dealing with large uncertainties *take no more than 180 days***
  - **Results documented in Initial Capabilities Document (ICD) for materiel requirements and/or Joint DOTMLPF Change Recommendation (DCR) for non materiel solutions**
- **Step Two – Develop ICD *(AFROC Approved – Working towards JROC Review)***
  - **Process to formally identify the warfighter requirements**
  - **Identifies gaps in meeting those requirements**
  - **Does not provide specific recommendations to a particular materiel solution**
  - **Identifies ***potential*** non-materiel approaches**
  - **Provides a more *general recommendation as to the type of materiel solution* such as - Evolutionary; Transformational or Information Systems**

EA-LVCE ICD Update
JCIDS 101

- **Step Three – Materiel Development Decision (MDD)** ***(Pending JROC Approval)***
  - ***Occurs after the ICD is JROC approved***
  - **MDD required prior to the start of an Analysis of Alternatives (AoA)**
  - **Requirements for MDD**
    - **ICD – JROC Approved**
    - **Designated lead for the effort**
    - **Cost Assessment Program Evaluation** ***(CAPE) develops AoA Guidance***
    - **Funding to conduct the AoA**
  - **MDD required to start the Materiel Solution Analysis (MSA) Phase**
- **Step Four – Design and Conduct AoA** ***(Pending JROC & MDD Approval)***
  - ***Develop AoA Study Plan (45 Days)***
  - ***Conduct AoA Study (9 months)***
  - **Multiple AoAs can be developed from an ICD**
  - **Multiple Capability Development Documents can be developed from an AoA**

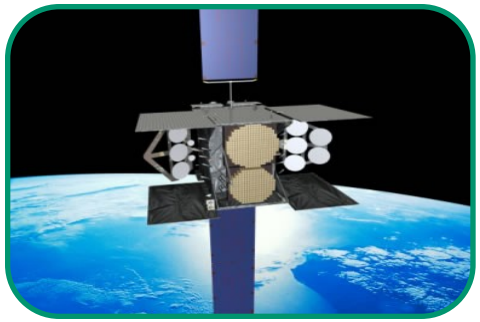
ICD to MDD to AoA Study Plan to AoA Report



EA-LVCE ICD Update
Warfighter Requirements

Essential to support the Joint Force Commander in achieving military objectives by

Knowing the capabilities and limitations of the fighting force to execute operational requirements



Having confidence in knowing how systems will perform in every current & future mission environment

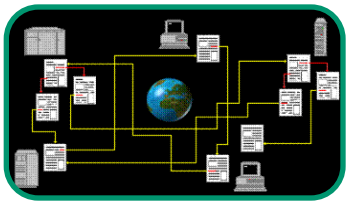
Having the ability to determine the appropriate application of force to dominate the battlespace

Affording the warfighter the ability to have fought the fight realistically before actually fighting the fight

EA-LVCE ICD Update
Warfighter Required Capabilities

LVC Environment

Provide a persistent, agile, trustworthy, robust, manageable, organized, and integrated LVC Environment



Integrated Architecture

Develop, maintain, and implement an integrated, interoperable, and quality LVC Architecture

Oversight

Educate and maintain an agile and trustworthy M&S Workforce

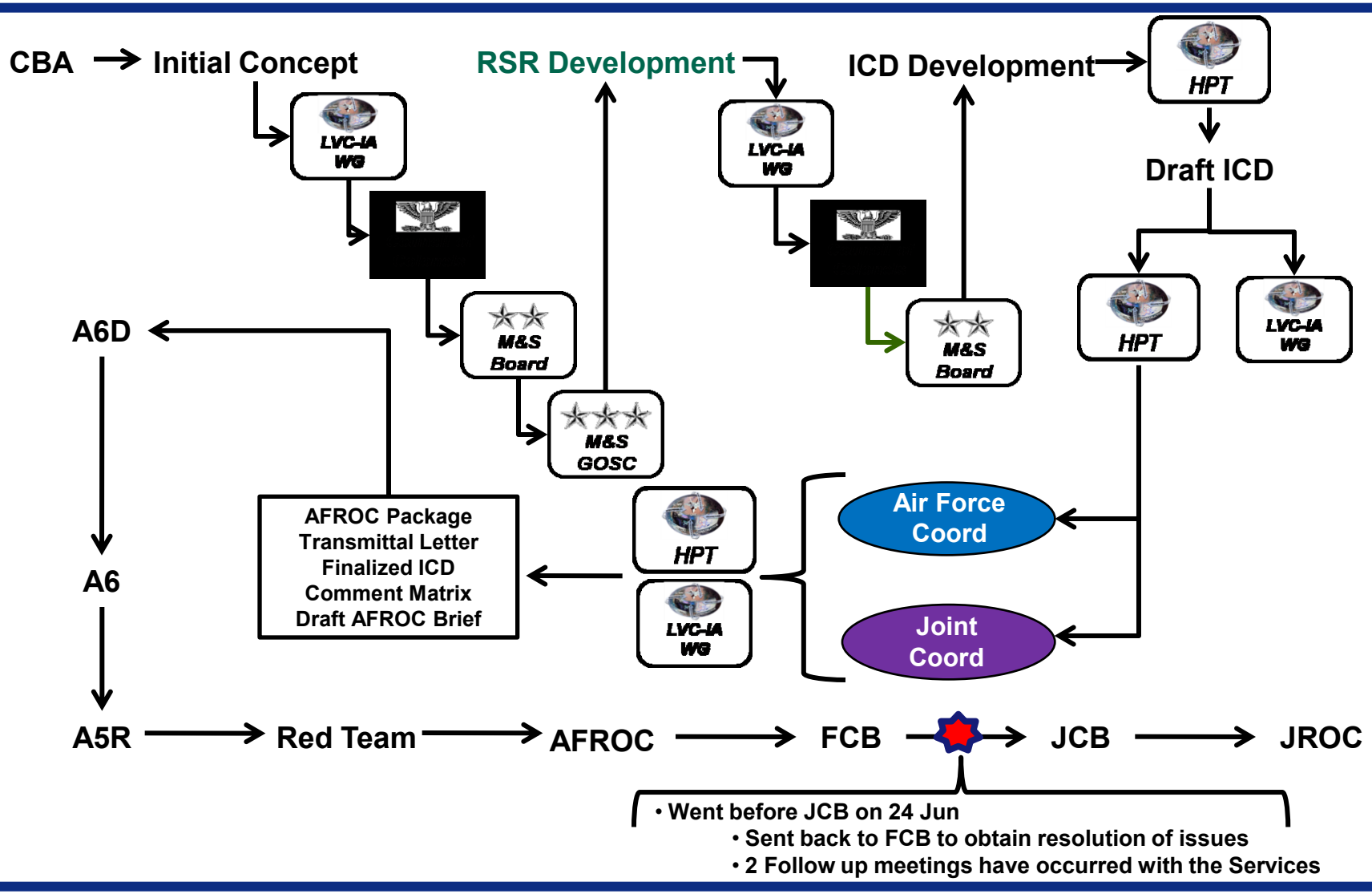
Professional Workforce

Provide Oversight and policy guidance to ensure compliance

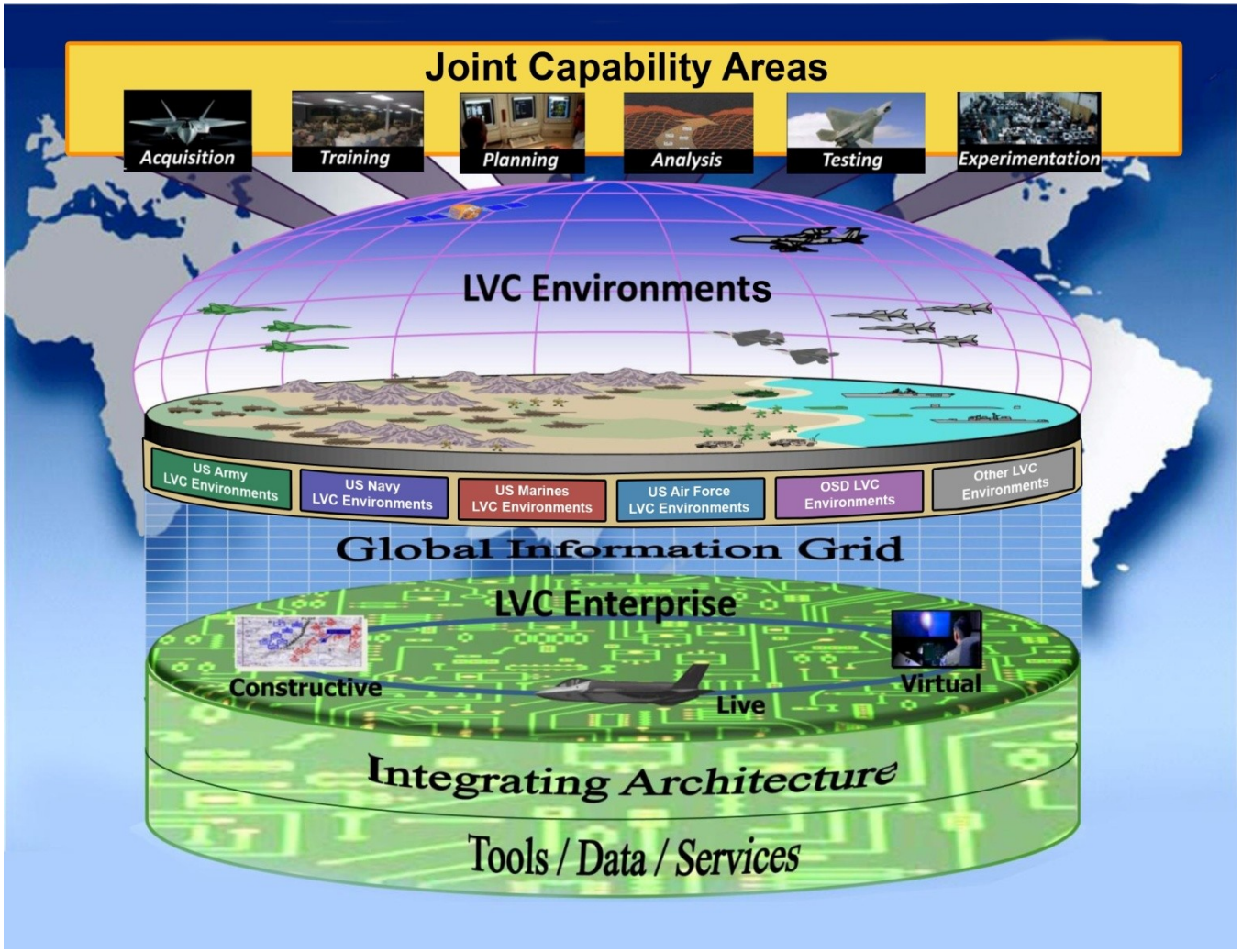
EA-LVCE ICD Update Materiel Approaches

- Evolutionary development
  - Develop capabilities to interface complementary LVC systems
  - Integrate legacy systems into the EA-LVCE
  - Identify and migrate to a set of CDS and MLS solutions
  - Development of suitable EA-LVCE operational safety standards
- Transformational approach
  - Integrate live systems capabilities into distributed LVC events
- Information systems approach
  - Develop and implement communication specification standards
  - Develop a core set of gateways that provide non-proprietary connectivity to multiple communication protocols

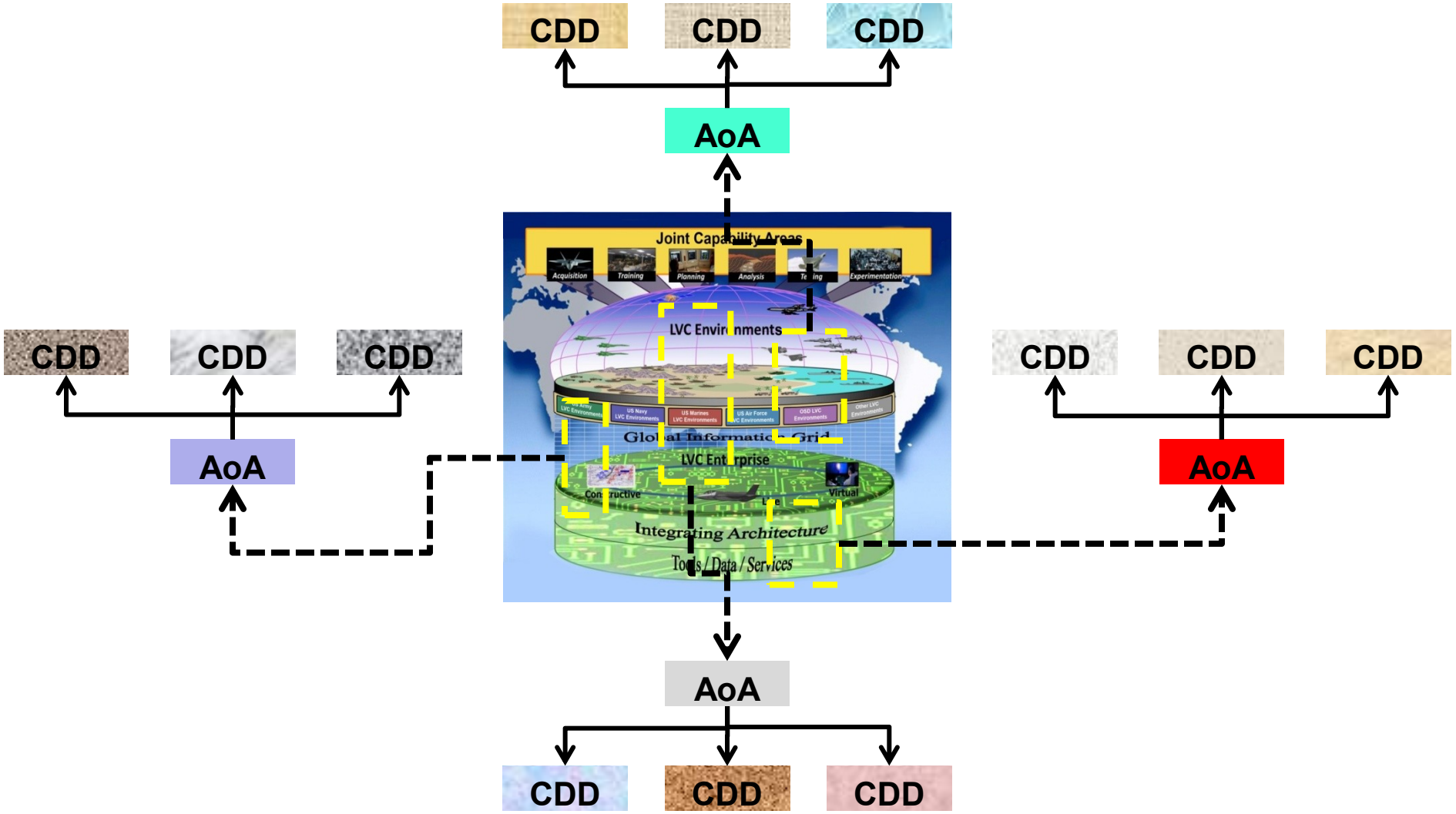
EA-LVCE ICD Update
JCIDS Status



EA-LVCE ICD Update
OV-1



EA-LVCE ICD Update
Next Step in the Process



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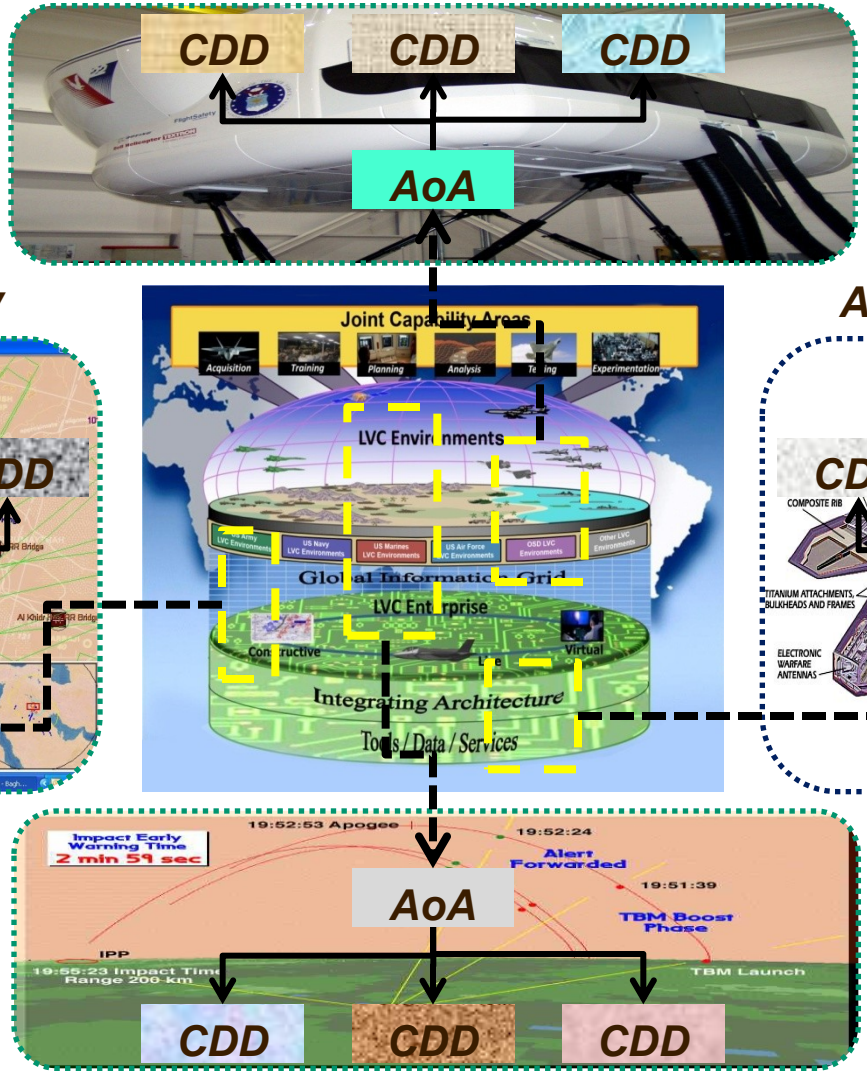

Any Questions?

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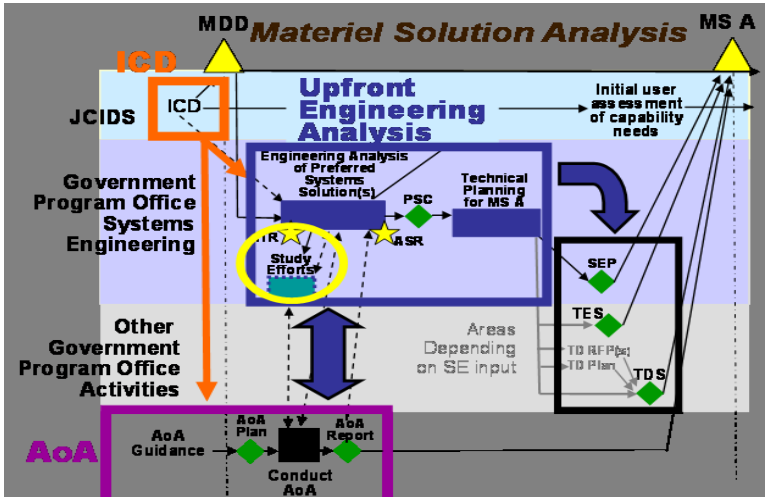
EA-LVCE ICD Update
AoA Way Ahead

ICD to MDD to AoA Study Plan to AoA Report

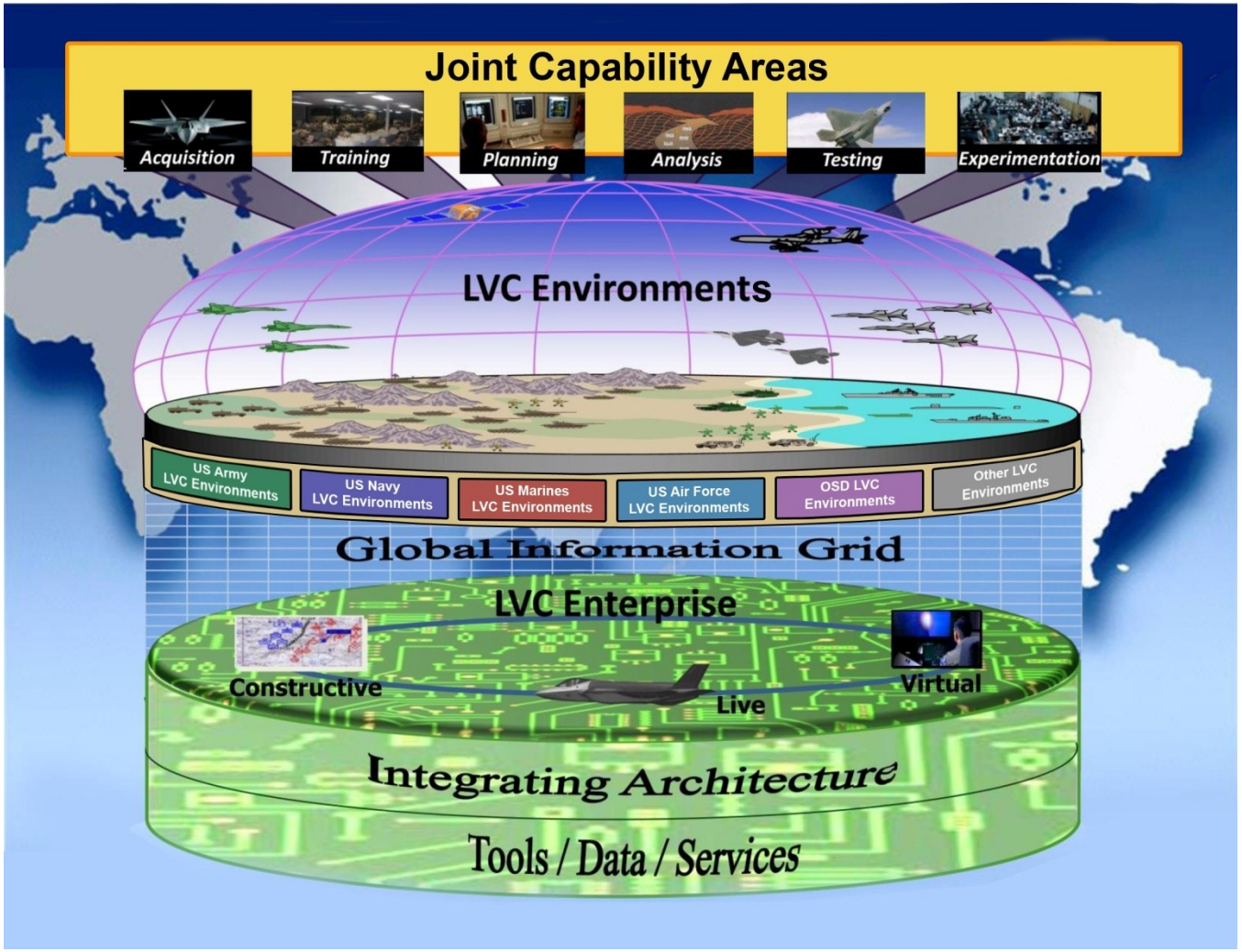


JROC Approves EA-LVCE ICD

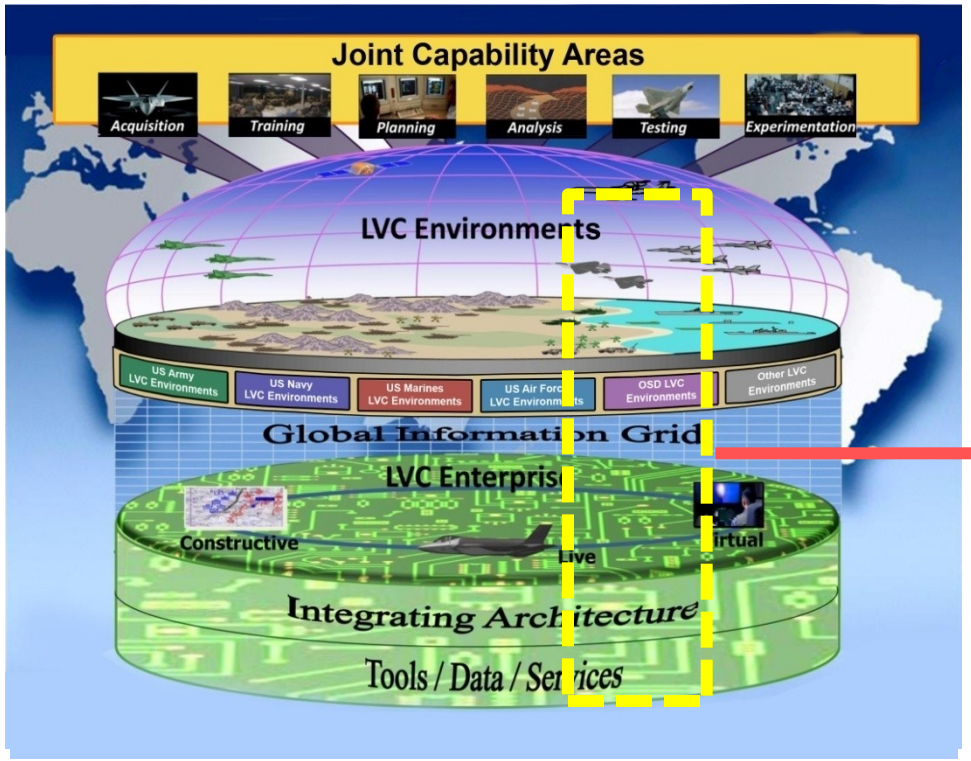
45 Days | 30 Days | 9 Months

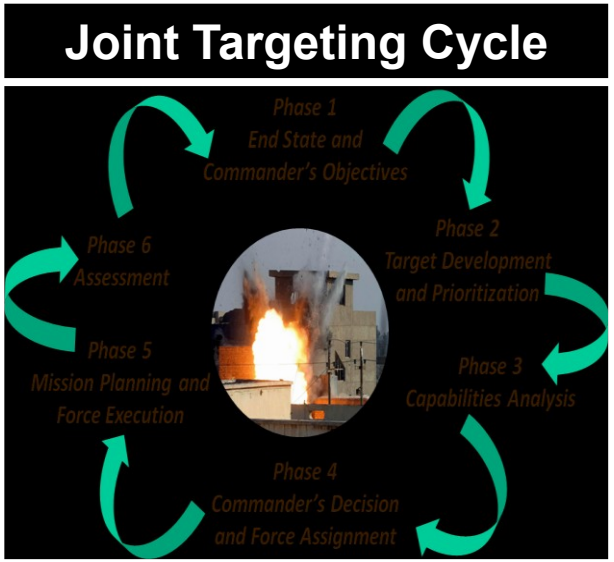
Pre JROC Activities	Conduct MDD	Finalize AoA Study Plan	Conduct AoA	Deliver AoA Report	Staff AoA Report
Draft AoA Study Guidance Draft AoA Study Plan	Approved ICD AoA Study Guidance (CAPE) Funding for AoA		Threats & Scenarios Technologies & Alternatives Employment Concepts Effectiveness Analysis Cost Analysis Alternative Comparison		

EA-LVCE ICD Update
AoA Scoping

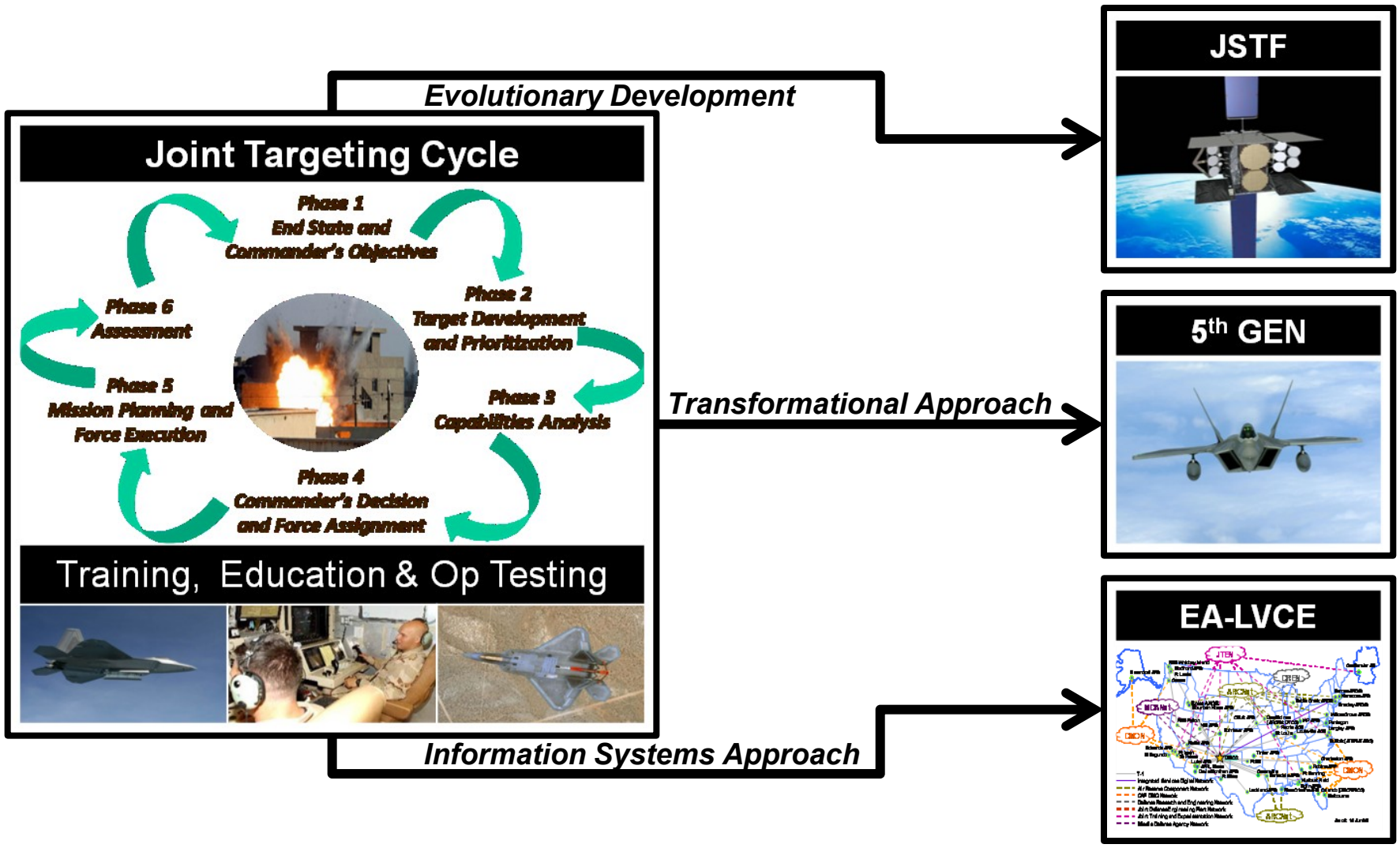


EA-LVCE ICD Update
AoA Scoping





EA-LVCE ICD Update
AoA Scoping



EA-LVCE ICD Update
AoA Scoping –Functional Communities

- Initial Pre-MDD meetings determined the scope of the initial AoA will address the following communities:
  - Training (LVC-OT)
  - Education
  - OT portion of T&E functional community
- Selections based on:
  - Greatest Need/Urgency
  - Mature technology to make positive incremental steps
  - Leadership emphasis
    - Architecture Backbone: USAF-USN POM 13 Strategies Memo, 3 Dec 2010
    - JSTF: USSTRATCOM Space M&S Capability Memo, 28 July 2010
    - 5th Gen Training: HQ ACC DMO & LVC Funding CORONA Briefing, 30 May 2010

EA-LVCE AoA
Initial Draft Problem Statement & Scope

- ***Proposed EA-LVCE AoA Problem Statement:***

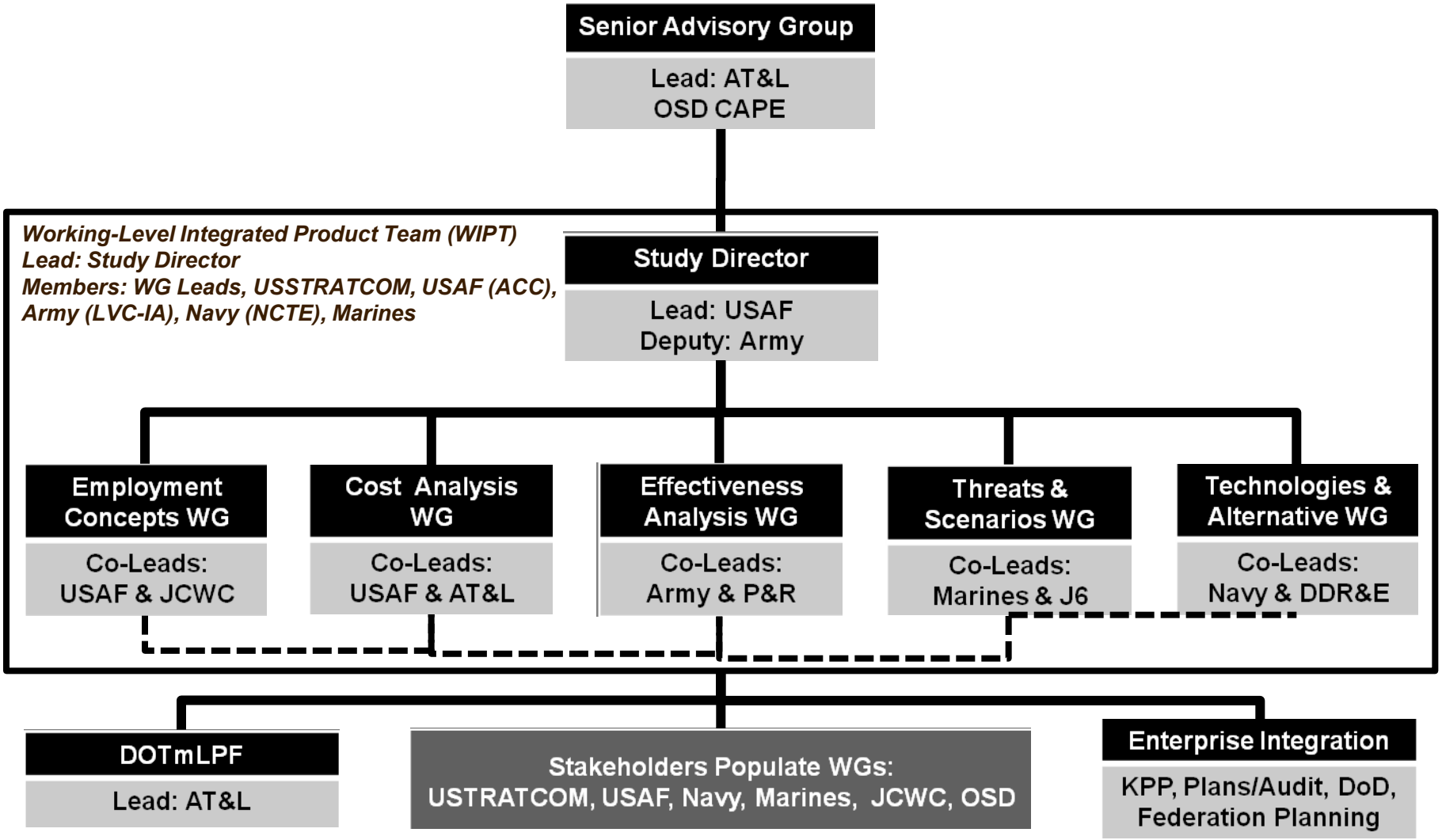
  The warfighter does not have an enterprise architecture for LVC systems that provides persistence and interoperability across multiple LVC environments to operate seamlessly at varying security levels and multiple representation levels to meet operational requirements.

- ***Proposed AoA EA-LVCE Scope:***
  - **Determination of a technical architecture supporting a seamless LVC environment that enhances education, training, and operational test activities focused on:**
    - **A standardized architecture(s) transport system**
    - **Connectivity of 5th gen to the standardized transport system**
    - **Joint Space Training Federation interoperability through the standardized transport system**
  - **Determination of the Joint Space Training Federation environment based on operational priorities that will incorporate the standardized architecture(s) transport system to support the Joint community.**

EA-LVCE AoA
Draft Study Plan Outline

- Purpose - Background
- Objectives , Problem Statement, and Scope
- Constraints & Assumptions
  - DOTmLPF Issues
- Study Questions
- Study Team/Organization
  - Senior Advisory Group
- Threats And Scenarios
  - Team Composition
  - Methodology
  - Deliverables
- Technologies And Alternatives
  - Team Composition
  - Methodology
  - Deliverables
- Employment Concepts
  - Team composition
  - Methodology
  - Deliverables
- Effectiveness Analysis
  - Team composition
  - Methodology
  - Deliverables
  - Measures of Performance (MOPS/MOES)
- Cost Analysis
  - Team composition
  - Methodology
  - Deliverables
- Alternative Comparison
  - Cost Effectiveness
  - Risk Analysis
  - Sensitivity Analysis
- Schedule
- Configuration Mgt

EA-LVCE AoA
Proposed Study Team/Organization



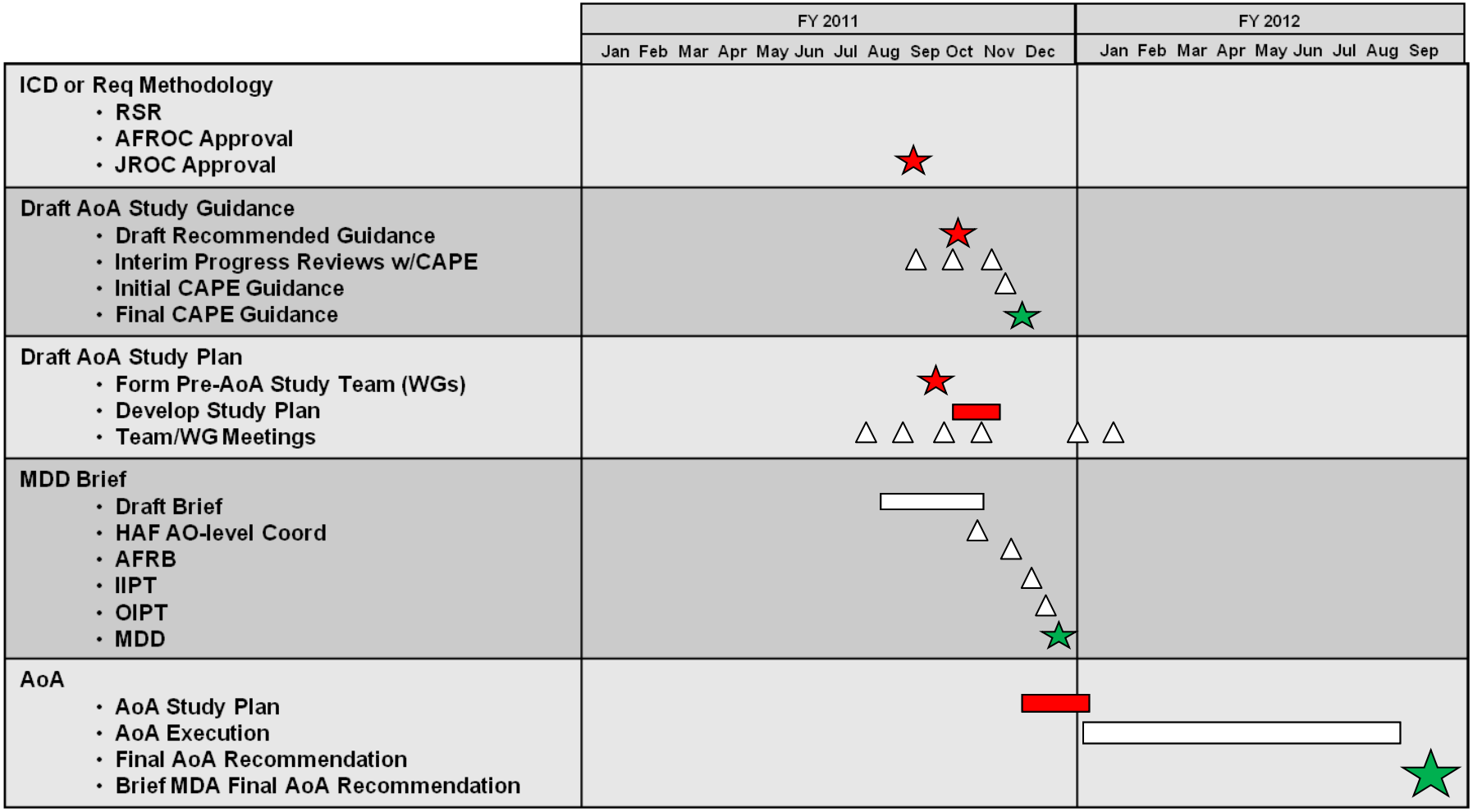
EA-LVCE AoA
Proposed Key Questions - Data Collection

- How effectively do the standardized architecture transport system alternatives address scalability, interoperability, latency, composability, integration and persistence to meet operational requirements?
- How effectively do the standardized architecture transport system alternatives address multi-level security (single device can handle secret/TS) and cross domain solutions (different level of security across networks-includes DIACAP) to meet operational requirements?
- How effectively do the alternatives allow for connectivity of 5th gen LVC systems and the standardized architecture transport system?
- How effectively do the alternatives allow for interoperability of JSTF LVC systems and the standardized architecture transport system to meet operational requirements?
- How effectively do the alternatives replicate the operational space environment and accommodate multiple levels of security for JSTF to seamlessly operate across the LVC architecture?
- What alternative best satisfies all of the Key Questions in a cost effective manner?

EA-LVCE AoA
Potential Alternatives

- Baseline--Status Quo
- Create solution from existing capabilities—modernization and standardization of architectures and environments
- Create from off the shelf GOTS/COTS solution sets
- Create new solution
- Create solution with a combination of existing capabilities and some new development (architecture from existing capabilities and create new environment)

EA-LVCE AoA Roadmap



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Return on Investment of Modeling and Simulation

ROI
Why is ROI important?

- *Continuing squeeze on resources*
  - *Emphasis on "lean" execution*
  - *Competition for funds*
  - *Need to carefully examine every investment*

- *More demanding operational requirements*
  - *New complex DoD programs*
  - *Earlier industry involvement*
  - *Increased system complexity*
  - *Demand for jointness*

- *More available technical capability*
  - *Communications*
  - *Computers*
  - *Software technology*
  - *Displays/ human-machine interfaces*
  - *Data storage and management*

Why is ROI important?
Positive External Examination

Fort Worth Star-Telegram

May 08, 2007

Simulators Reducing Test Flight Risks

"With the aid of high-speed computers, every mile, minute and maneuver of the initial flight had been tested repeatedly in simulators. The goal was to have no surprises. It's not like in the old days when you put a pilot in a [1950s jet] fighter, and [if he crashed] he got an Air Force base named after him,"

GAO repeatedly warned that the plans for designing, building and testing the JSF were too optimistic.

"Results so far validate the belief that modern design and simulation technology can greatly reduce the risk of serious problems. "What we're finding, is all that investment has paid off."

Why is ROI important?
Negative External Examination

Fort Worth Star-Telegram

November 9, 2006

Lockheed Martin was paid $145 million for computerized F-16 pilot-training simulators.

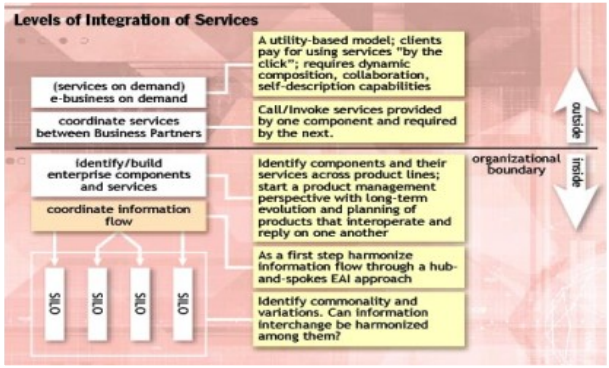
"Substandard" according to a Defense Department audit.

"Lockheed's simulators allow training on only two of 16 missions specified in the Air Force contract, and pilots must continue using the F-16s "at a cost of more than $5,400 an hour," the audit said."

ROI
Conducting an ROI Analysis

No single "right" way to conduct a ROI analysis.

Nor is there a Consumer Reports for ROI products and services.



In determining how to conduct your analysis, focus on strategic objectives of the analysis along with the goals and business processes of the proposed project.

ROI
Realistic Numbers - Example

Emerald Warrior 10 DMO
AFSOC-MARSOC AC-130 TTP Cost Comparison: M&S Virtual vs. Live

- **124-USMC & MSOT forces trained using *Virtual/Constructive*:**
  - **4-15 Mar 10**
  - **Virtual Mission O&M per hr**
    $40.00 per hr x 3 (contractors) x 8hr per day x 8 days = $7,680.00
- **Cost Comparison using *Live* methods:**
  - **AC-130H Per hour: ($10,078 per Hr / O&M)**
  - **9-Sorties required x 4.5Hr per sortie = 40.5 total hours x $10,078 per Hr/O&M = $408,159.00**
  - **9-Ammo loads at $35,000.00 per load = $315,000.00**
  - **124 MARSOC/Personnel TDY to Hurlburt for 10 days = $248,000.00 (approx)**
  - **$408,159.00 (Live O&M) + $315,000.00 (Ammo) + $248,000.00 (TDY) = $971,159.00**

BL: Live fly cost: $971,159.00 vs. Virtual/Constructive fly cost: $7,680.00

ROI
Unrealistic Numbers - Example

Unnamed Large Scale Constructive Exercise

Event	Cost Basis	Cost
Sorties flown - 12,513	Live cost average - $5000 per sortie	$62,565,000
2 Predators always up	Per-hour cost of operating a UAV - $3,234	$1,086,624
GBU-38 Dropped - 699	Per GBU-38 - $35,000	$24,465,000
GBU-31Dropped - 451	Per GBU-31 - $70,000	$31,570,000
Cruise Missiles Fired -128	Per Cruise Missiles - $830,000	$106,240,000
	Total Savings	$225,926,624

Consistent Metrics - Example

Percentage of Simulator Availability		
	Based on 8760 hours in the year percentage is the amount of time soldier are physically in the simulator	23.7%
	Based on 8760 hours in the year the percentage is based on the time the simulator is available for training	75.6%
	Based on 8760 hours in the year minus maintenance time the percentage is the amount of time soldier are physically in the simulator	25.5%
	Based on 8760 hours percentage is the amount of time the simulator is powered on	91.3%

Soldier in the simulator – 2080 hours
Maintenance time for the simulator - 600 hours
Time simulator powered off – 350 hours

ROI
Analysis Methodology for M&S ROI

- *As the various aspects of the enterprise are integrated over time, measurable values need to be documented to identify the ROI of the program.*

- *Measuring value to military mission execution requires significantly more analysis than traditional cost comparisons.*

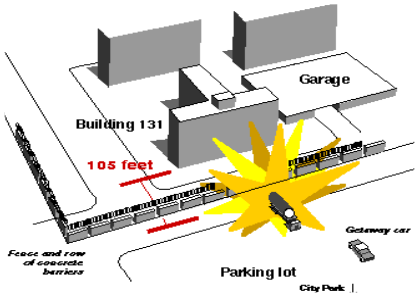
- *EA-LVCE must follow a process to validate its success for all its objectives:*
  - *Task 0: Based on the EA-LVCE CBA, ICD & AoA establish specific functional area needs and requirements for the integrated M&S Architectures*
  - *Task 1: Determine baseline metrics that apply to use of integrated M&S architectures (LVC) for the functional area tasks.*
  - *Task 2: Measure the level of performance for the as-is LVC architecture capabilities.*
  - *Task 3: Assess shortfalls and recommend improvements.*
  - *Task 4: Make appropriate changes and assess the level of improvement, necessary adjustments, and remaining shortfalls.*

ROI
Areas for M&S ROI

Reuse

Readiness

Efficiency

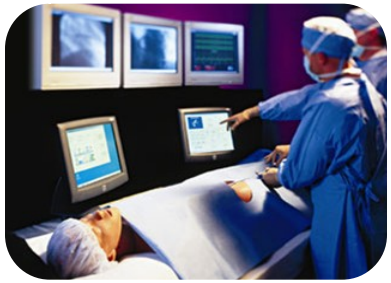


Risk Reduction

Effectiveness

Money

Environment



Lives

Time

Areas for M&S ROI
Draft Questions for Data Collection

Reuse - The renewed use of artifacts and collected knowledge arising from a fielded simulation when developing a new simulation, in order to reduce the expenditure for creating and maintaining the new simulation.

Reuse
What simulations/data do you use (and reuse), and who else do you know that use them? Are they used for every event? If not, why?
Do you derive data from other sources (GFM, NGA, GCSS-AF, etc)? If so, where does it come from? Is it available on demand?
Are there simulations from other organizations that you must use to support your events?
Does anyone come to you for data that you create?
What source documents are used for your simulation requirements?
Do you piggyback on other functional events? Does it fulfill all of your objectives?
Do you have any network configurations/ architectures that you routinely use?
Do you have scenarios you reuse?
Do you reuse FOMs / DIS enumerations? Do you maintain multiple FOMs/Enum?
Are there any other reuse issues we should be aware of?

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Draft Questions for Data Collection

Readiness – The preparation for battle and all other endeavors (i.e. examining whether the aircraft and crews are ready to do their mission)

Readiness
What qualification levels do you track (# Aircrew, # rap squares, # flying hours, etc.)
Do you track composite events/performance (TST, PR, CAS, etc.)
What documentation establishes how simulations are used in your functional area?
What mission tasks are currently accredited in a V/C environment?
Are there V/C gaps/shortfalls that could improve your functional mission, if corrected?
What potential/recurring errors or failures need to be addressed in V/C before use in real world?
How is simulation used to help perform tasks quicker and with greater confidence?
Are there any other readiness issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Efficiency – The quality or degree to which someone or something possesses adequate skill or knowledge for the performance of a duty

Efficiency
How many people does it take to plan/prepare/run/monitor/execute each event (exclusive of the target audience)?
How long does it take to establish M&S connectivity for each event? Why?
How many planning sessions (and people) are required for your event planning?
How many integration tests (and people) are required for each event?
What event support (logistics, people) is required for the events?
What primary customer dead time is encountered in the events?
What is the role/level of involvement of your customers in the process?
Are there real world equipment limitations to the events (emulators, stimulators)?
Based on your requirements, what tasks are better suited for an L environment, V environment, or C environment? Why?
Are there any other efficiency issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Risk Reduction – Reducing the safety risks inherent to difficult situations without costly or irreversible consequences

Risk Reduction
How do you maintain currency of the simulation/simulator to ensure accurate representation of the live system?
How do you limit the risk of simulation system failure prior to or during an event? How many failures, for how long, for what reasons, and what was the impact on events?
What V/C capabilities are used to reduce mission/event risk?
What are the repeatability requirements? Are they currently achievable?
What operational/environmental variations do you use/require to reduce risk?
Are there any other risk reduction issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Effectiveness – The extent to which actual performance compares to targeted performance

Effectiveness
What aspects of performance measures are associated with your current simulation events?
How do you determine that the simulation has met performance requirements in each event? Can you provide historical data?
Within your events are you required to interface with real world C2 systems? If you replicate any systems, are there any gaps in representation?
Are the events always timely enough to meet customer needs? If not, why not?
Is the data capture capability sufficient to evaluate all performance measures?
Are there any other Effectiveness issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Money – Costs avoided or saved by the use of simulation to replace actual military forces, systems and operations

Money
What major monetary expenditures are required to perform your simulation events?
What activities/events do you perform in simulation environments that were historically performed only in a live environment? What is the cost of these events?
For a typical event – what is the cost in man-hours and resources (planning / testing / execution / after action / cleanup /etc.)?
Are there any other Money issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Environment – Environmental impact reductions that ensure people, wildlife and the environment in which they live are safe from health hazards.

Environment
What are you not allowed to do, due to environmental constraints? How do you use simulation to offset those constraints?
Do you have any measures of environmental savings using V/C instead of live events?
What events can only be done either within or integrated with V/C (due to operational or legal constraints)?
Are there any other Environment issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Lives – Reduction in the number of casualties resulting from harsh training, testing or operational conditions due to training in a safe simulated environment

Lives
Are you aware of any event in which simulation helped to mitigate a life and death situation or helped avoid loss of life? Or are you aware of any simulation experiences that contributed to a negative incident
Besides the AF ISC, are you aware of any organization that investigates serious accidents & the preparation/training prior to the accident.
What are the repeatability requirements? Are they currently achievable?
What operational/environmental variations do you use/require to reduce risk?
Are there any other risk reduction issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Time – Reduction in the amount of time it takes to complete a task

Time
Do you have a standard timeline to conduct your events (including planning / testing / network set-up / execution / after action / cleanup /etc.)?
What are the major show stoppers in your timeline that have impacted you in the past 3 years?
How do you manage data prior to, during, and after your events? What resources are you required to use for data management?
Are there any other Time issues we should be aware of?

Areas for M&S ROI
Draft Questions for Data Collection

Additional Information for Site Visits
What is your mission area focus? Counterair, CAS, TST, SEAD, etc.
Capability Gaps Areas - White card or otherwise assume occurs during an event
Architecture artifacts
Network diagrams
Current organization chart

Agenda
ROI & EA-LVCE - Breakout Session

Time	Topic
0800 - 0815	Welcome / Opening Remarks / Introductions • Overview and Desired Outcomes of the Session
0815 - 0900	Update on USAF Foundations • LVC-IA Five Year Plan / Priorities List • EA-LVCE ICD (Initial Capability Document)
0900 - 1000	ICD to Materiel Development Decision to Analysis of Alternatives • Pre MDD • AoA Study Plan • Roadmap and Data Collection • Open Discussion
1000 - 1015	Break
1015 - 1115	Return on Investment • Approach and Metrics for ROI • Open Discussion
1115 - 1130	Wrap Up / Review Way Ahead & Action Items

Sites to be Visited or to have Data Collected From				
USAF	Navy	Army	USMC	Joint
ACC AFSOC Eglin DTOC WPC DMOC AMC AFMC AWC Tyndall AFSPACE AETC ESC ASC	NAVMSMO NCTE	AMSO NSC Ft Bliss Ft Hood Ft Sill	MCMSO	STRATCOM PACOM EUCOM CENTCOM SOCOM NORTCOM JCWC J-7 P&R AT&L